

**Table 2 - Town of Pavillion Groundwater Quality - Individual Wells**

Constituent	Well #6				Well #7				Well #8				EPA Drinking Water Standards	
	Well #1/#4	Well #1	Well #4	SOC <sup>1</sup>	PGDW07	PGPW01	PGDW08	PGPW02	this study	Well #8		SOC <sup>2</sup>	Primary	Secondary
	Data Source	this study	M-M (1984) <sup>1</sup>		this study	this study	this study	this study						
	Sample Date	02/18/11	05/29/12		03/22/82	05/29/12	02/18/11	05/29/12		2/18/11	5/29/12			
MAJOR IONS (mg/L)														
Alkalinity, Total as CaCO3					65	80.8	74.7	82.9	82.8		124	124		
Bicarbonate, HCO3					79						142			
Carbonate, CO3					5						<5			
Calcium					6	8.85	5.7	38.7	34.4		11	11.1		
Chloride					18	15.7	15.3	8.9	8.5			87		250
Fluoride					1.54	1.2	1.2	0.5	0.5				4	2
Magnesium					<1		ND		ND			<1.0		
Nitrogen, Nitrate+Nitrite as N			0		<0.05							<0.1	10	
Nitrogen, Nitrate as N						<0.5	<0.3	<0.5	<0.3					
Nitrogen, Nitrite as N						<0.5	<0.3	<0.5	<0.3				1	
Potassium					<1		ND		ND			<1.0		
Silica														
Sodium		282	210	208	173	186	187	213	173	390	393	388	253	257
Sulfate		523	480	297	300	278	163	390	300	857	847	787	449	439
PHYSICAL PROPERTIES														
Conductivity (umhos/cm)	1040	1333		897	880	893	861				1853	1230	12	1281
Hardness as CaCO3 (mg/L)			89									27		
pH (s.u.)							8.8							8.5 - 8.5
Total Dissolved Solids (mg/L)		961	844	601	495	570	576	495			1400	764	855	500
METALS - TOTAL (mg/L)														
Aluminum								ND	ND					0.8
Antimony								ND	ND					
Arsenic								0.00031	0.00031			<0.001		0.01
Barium					0.10			0.0041	0.0041					2
Beryllium								ND	ND					0.004
Boron														
Cadmium					<0.005			ND	ND					0.005
Chromium					<0.02				ND					0.1
Cobalt									ND					
Copper						0.0045		0.0079	0.0079					1.5
Cyanide														0.2
Iron					<0.05			0.0003	0.0003			0.13	0.44	0.3
Lead					<0.02			ND	ND					0.015
Manganese					<0.02	0.0056		0.0079	0.0104			<0.01		0.05
Mercury					<0.001			ND	ND					0.002
Nickel								0.00022	0.00022					
Selenium								ND	ND			<0.001		0.05
Silver								ND	ND					0.1
Thallium								ND	ND					0.002
Uranium, Natural	<0.0003		<0.0003		<0.0003						<0.0003	<0.0003		0.03
Vanadium								ND	ND					
Zinc								ND	ND					5
ORGANIC CHARACTERISTICS														
Ethane, Dissolved	<0.001		<0.001									<0.001		
Ethene, Dissolved	<0.001		<0.001									<0.001		
Methane, Dissolved	0.010		0.004					ND	ND			0.002	0.008	
Methane, Head Space (ppb)														
Diesel Range Organics (DRO)	<1.0		<1.0							0.0231		<1.0		
Gasoline Range Organics (GRO)	<0.020		<0.020		<0.040						<0.020	<0.020		
SEMI-VOLATILES (mg/L)														
Bis(2-ethylhexyl)phthalate								Detected	0.00023		Detected	0.00023		
Butylbenzylphthalate								0.00029			0.0036			
Caprolactam										0.0022				
Dimethylphthalate														
Fluorene								ND	ND		ND			
Naphthalene								ND	ND		ND			
gamma-BHC (Lindane)								ND	ND		ND			
Heptachlor								ND	ND		ND			
Methoxychlor								ND	ND		ND			
Benzene								ND	ND		ND			
Ethylbenzene								ND	ND		ND			
m,p-Xylene								ND	ND		ND			
Methylene chloride								ND	ND		ND			
o-Xylene								ND	ND		ND			
Styrene								ND	ND		ND			
Toluene								ND	ND		ND			
BACTERIOLOGICAL														
Bacteria, Heterotrophic (MPN/ml)														
Bacteria, Iron Related								Absent			Absent			
Bacteria, Approx. Iron Related														
Bacteria Population (CFU/ml)								Not Aggressive			Not Aggressive			
Bacteria, Sulfate Reducing								Absent			Absent			
Bacteria, Approx. Sulfate Reducing														
Bacteria Population (CFU/ml)								0			0			
RADIONUCLIDES (pCi/L)														
Gross Alpha												-3 <sup>1</sup>		15
Morrison-Maerle; 1984; "Water Supply Evaluation"; prepared for Town of Pavillion, Fremont County, Wyoming.														
EPA; 2009; "Pavillion Area Groundwater Investigation Site Inspection - Analytical Results Report". EPA; 2010; "Pavillion Area Groundwater Investigation Expanded Site Investigation - Analytical Results Report".														
Statement of Completion (from Wyoming State Engineer's Office)														
0.040 higher reporting limit on GRO for Well #6 is due to lab QA/QC protocols.														
The negative value for gross alpha in this analysis indicates that radionuclides in sample are not different from naturally occurring radionuclides and cosmic radiation detected by laboratory instrumentation.														